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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,373	03/04/2002	Hiroshi Ito	ARC920010125US1	7246

7590 01/11/2006

J. Elin Hartrum  
REED & ASSOCIATES  
Suite 210  
800 Menlo Avenue  
Menlo Park, CA 94025

EXAMINER
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WALKE, AMANDA C

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/091,373		ITO, HIROSHI	
	<b>Examiner</b>		<b>Art Unit</b>	
	Amanda C. Walke		1752	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13, 5, 7-12, 15, 17-19, 21, 24, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshio et al (JP 60-042411 in view of its English language abstract).

Toshio et al disclose a fluorine-containing polymer comprised of at least two monomeric units, and I and II appear to meet the instant claim limitations with the exception of the at least one of R4, R6, and R7 are other than hydrogen. While the reference prefers the formula of formula II wherein the substituents in the instant positions R4, R6, and R7 are all hydrogen, based upon a spot translation by a PTO staff member, it appears that the reference does teach the equivalence of a H and a F atom or alkyl group. Therefore it would have been obvious to one of ordinary skill in the art to prepare the material of Toshio et al choosing to replace a H atom (particularly the h in the instant R4 position) with a F atom. The resultant polymer may be employed in a resist composition.

3. Claims 4, 6, 13, 14, 16, 20, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zampini et al (US2002/0058199A1) in view of Toshio et al.

Zampini et al disclose a photoresist composition comprising monomers having electronegative groups. The composition may comprise fluorine-containing monomers such as



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(meth)acrylates and vinyl ethers along with monomers having the structures seen on pages 12, 13, 15, 23, and 24.

Toshio et al has been discussed above.

It would have been obvious to one of ordinary skill in the art to prepare the material of Zampini et al choosing to employ the known monomers of Toshio et al as the fluorine-containing methacrylate/ vinyl ether monomers with reasonable expectation of achieving a material which may form a pattern having high resolution.

### ***Response to Arguments***

3. Applicant's arguments filed 10/28/2005 have been fully considered but they are not persuasive. Applicant has argued that the reference may not be employed in a 102 rejection as the monomers of the reference specifically fail to teach a monomer having other than a hydrogen in any of the instant positions R4, R6, or R7. As discussed above in the new 103 rejection made in light of applicant's arguments and amendments, the reference does teach the equivalence of the H and F atoms, and provides motivation for replacing a hydrogen atom in any of R4, R6, and R7 with a F atom or alkyl group. Additionally, the correct Zampini et al reference has been cited, but the Zampini et al rejection stands in light of the discussion above of the Toshio et al reference.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



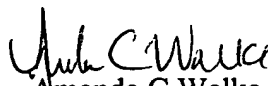
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337. The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Amanda C Walke  
Examiner  
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ACW

January 8, 2006